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AUTHOR Lows, Raymond L.
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ABSTRACT

This paper describes the current and proposed systems for state and local financing of public education in Illinois and discusses the ramifications for local educational planners of a change from a foundation level program to a resource cost model approach. The paper begins with a brief historical overview of the finance reform effort that began in Illinois in 1981. The next section of the paper describes the foundation level program used in Illinois, identifying the variables used in the formulas and noting their interactions and their potential impact on educational planning. The paper then covers the relationships among resource cost, resource quantity, and local community preference as these affect local district fiscal needs. Particular attention is paid to the Program Cost Differential process that identified 139 different educational programs and their resource needs. The resource cost model is computationally more complex than the foundation level approach, is enrollment-driven rather than attendance-driven, leaves variables that are critical subject to revision, and requires expansion of accounting and reporting operations. Appendixes detail the appropriate resources identified for elementary and secondary programs, provide forms for calculating resource costs, clarify the specification of resources for district level administration, and display cost of education indices for selected school districts. (PGD)

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A Resource Cost Model: Implications for Local School District Planning in Comprehensive School Finance Reform Efforts

Raymond L. Lows

Northern Illinois University

A paper presented at the 1985 Annual Meeting of
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A Resource Cost Model: Implications for Local School District Planning in Comprehensive School Finance Reform Efforts

Raymond L. Lows
Northern Illinois University

> A fundamental goal of the People of the State is the educational development of all persons to the limits of their capacities.
>
> The State shall provide for an efficient system of high quality public educational institutions and services. Education in public schools through the secondary level shall be free. There may be such other free education as the General Assembly provides by law.
>
> The State has the primary responsibility for financing the system of public education.
>
> Article X, Section 1, Constitution of the State of Illinois

Although the courts have consistently held that education is a state function, it is well established that local boards of education enjoy a wide range of authority over educational matters. In the nineteenth century it became evident that local financing alone was inadequate and that the state must pay a share of the cost of public education. Although the practices of shared governance and shared financing are widely accepted, the "scope of powers" and the "level of funding" as well as the "appropriate shares" are subject to annual discussion and debate.

In May 1981, the Illinois State Board of Education began a comprehensive project to develop recommendations for a new system of financing Illinois public schools. This new school finance system was expected to accomplish the following:

1) generate adequate revenue for education on a basis that is fair to the taxpayers;
2) distribute state funds for education at levels that are adequate and in ways that are fair to school districts and students; and
3) facilitate management practices that use resources effectively and efficiently.[1]

At the outset, this comprehensive project consisted of 26 separate components or studies. Included among the topics to be studied were local district organization, need, fiscal capacity and effort, alternative ways of generating revenue for education, program and fiscal adequacy, inflation, overburden factors, cost of education index, and program cost differentials. Twenty-four (24) of the studies were to be completed by the Illinois State Board of Education (ISBE) staff and two of the studies, the Illinois Cost of Education Index (CEI) and Program Cost Differentials (PCD) were to be conducted for the State Board by Associates for Education Finance and Planning (AEFP).[2]

The cost of education index and program cost differentials are essential components of AEFP's Resource Cost Model (RCM) approach to school finance systems. The RCM is a conceptual framework and methodology for analysis of

inequities associated with variances in local district wealth (regardless of the measure chosen), pupil needs (regardless of specified programs), and costs of (not expenditures for) goods and services.[3]

Two terms -- adequate and appropriate -- were assigned distinctive definitions for the project. On the one hand, adequate and adequacy were to refer to concepts, programs, or requirements that carry with them notions of students' rights, legality, or sanctions. On the other hand, appropriate was to refer to the level of services identified as those to be funded at least in part by the state, in light of current educational technology, available funding, and consistency with preliminary determinations of program quality.[4]

The Technical Advisory Panel reviewed the findings of the various studies and submitted its formal report to the Illinois State Board of Education in September 1983. The report, "A Comprehensive System for Financing Illinois Public Education," contained 44 recommendations relative to the financing of Illinois public schools.[5]

The recommendations of the Technical Advisory Panel were reviewed by the ISBE staff and in September 1984 the publication "The State Superintendent's Preliminary School Finance Recommendations" was released.[6] Although some of the recommendations in the report were independent of the Resource Cost Model (RCM) approach to school finance, "The

State Superintendent's Preliminary School Finance Recommendations" became known as the "RCM."

What are the implications for local school district planning resulting from comprehensive school finance reform efforts such as that proposed in "The State Superintendent's Preliminary School Finance Recommendations?" Or, what are the implications for local school district planners in moving from a traditional foundation level program of state-local financing of public education to a Resource Cost Model approach to state-local financing of public education? It is the purpose of this paper to briefly describe the current and proposed systems of state-local school finance and to discuss the ramifications for local educational planners in changing from a foundation level program to a resource cost model approach to state-local financing of public education.

The Foundation Level Program of State-Local School Finance

The current system of financing public education in Illinois is fundamentally a foundation level program. Under a foundation level program, the amount of state aid per pupil (A_i) a school district will receive is the difference between the foundation level amount per pupil (G) and the specified local contribution per pupil defined by the property tax base per pupil (B_i) and the specified tax rate

(t_s). Mathematically, the foundation level formula can be expressed as follows:

$$A_i = G - (B_i)(t_s)$$

$$\text{or } A_i = (B_g)(t_s) - B_i)(t_s)$$

$$A_i = (B_g - B_i)(t_s)$$

where A_i = the amount of state aid per pupil; except that A_i is greater than or equal to 0.

G = the foundation level amount per pupil

B_g = the state guaranteed equalized assessed valuation (eav) per pupil

B_i = the district equalized assessed valuation (eav) per pupil

t_s = the computational tax rate which is used solely for the purpose of computing A_i

The local contribution per pupil can be expressed mathematically as follows:

$$L_i = (B_i)(t_i)$$

where L_i = the amount of local revenue per pupil.

B_i = the local district equalized assessed valuation (eav) per pupil

t_i = the local district tax rate

The total state-local funds available per pupil in each local district can be expressed as the sum of local revenues and state aid as follows:

$$T_i = L_i + A_i$$

$$T_i = (B_i)(t_i) + (B_g - B_i)(t_s)$$

where T_i = the total amount of local revenues and state aid per pupil.

A_i = the amount of state aid per pupil; except that A_i is greater than or equal to 0.

B_g = the state guaranteed equalized assessed valuation (eav) per pupil

B_i = the district equalized assessed valuation (eav) per pupil

L_i = the amount of local revenue per pupil

t_i = the local district tax rate

t_s = the computational tax rate which is used solely for the purpose of computing A_i

The total amount of local revenue and state aid in the district is obtained by multiplying the per pupil amount T_i by the number of pupils (N). Given these relationships, one can make certain generalizations about the variables in the foundational level program of state-local school finance:

T_i => the system focuses upon total local revenue and state aid; the system does not directly focus upon expenditures

N => all pupils are equal; that is, no distinction is made between pupils

B_i => the local equalized assessed valuation (eav) per pupil, or tax base, is a function of local property wealth and the number of pupil (N)

B_g => the state guaranteed equalized assessed valuation (eav) per pupil, or guaranteed tax base is annually determined by the General Assembly and the product of the guaranteed tax base and the computational tax rate t_s defines the amount of the foundation level

t_s => the computational tax rate is an arbitrary constant which is used to determine the amount of the foundation level and to determine the amount of state aid to be distributed to each local district. The value of the arbitrary

constant has remained relatively fixed over an extended period of time.

t_i => the local district tax rate may be increased to state legislated maximum rates by local referendum.

Given these characteristics of the variables, the educational planner can estimate the resource availability in future years. The number of independent variables is limited to five--one may be changed by local referendum (t_i), two may be estimated from historical trends at the local level (B_i, N), and two are under the control of the General Assembly (B_g, t_s). The relationship between the dependent variable and the five independent variables can be summarized in a few statements. For example, if there is an increase in the number of pupils, then the district would expect a decrease in the property tax base per pupil which would result in decrease in the local contribution per pupil, an increase in the state aid per pupil and under a 60 percent local/40 percent state condition would result in a decrease total amount per pupil. No changes would be expected in the local district tax rate, the state guaranteed tax base per pupil, nor the state specified tax rate as a result of an increase in the pupil count in the local school district. Table I presents a summary of expected relationships between variables under an assumption

of 60 percent local share and 40 percent state share of combined state-local funds.

Table 1

Foundation Level Variables and Expected Relationships
(60 percent local/40 percent state)

Changes	Increase Expected	Decrease Expected	No Change Expected
Increase in N	A_i	T_i, B_i, L_i	t_i, B_g, t_s
Decrease in N	T_i, B_i, L_i	A_i	t_i, B_g, t_s
Increase in B_g	A_i, T_i	-	B_i, t_i, t_s, N, L_i
Decrease in B_g	-	A_i, T_i	B_i, t_i, t_s, N, L_i
Increase in t_s	-	A_i, T_i	B_i, B_g, t_i, N, L_i
Decrease in t_s	A_i, T_i	-	B_i, B_g, t_i, N, L_i
Increase in B_i	T_i, L_i	A_i	B_g, t_i, t_s, N
Decrease in B_i	A_i	T_i, L_i	B_g, t_i, t_s, N
Increase in t_i	T_i, L_i	-	B_g, B_i, t_s, A_i, N
Decrease in t_i	-	T_i, L_i	B_g, B_i, t_s, A_i, N

It would be an oversimplification if one were to assert that local school district financial planning could be reduced to a 3" X 5" card. However, the intent of the summary in Table 1 is to illustrate the relationship among the variables in a rather simplistic system of state-local school finance.

Resource Cost Model Approach to Funding Public Education

Four concepts which are considered to be central to a state-local system of financing public education are adequacy, equity, efficiency, and liberty. In simplest terms, adequacy addresses the question as to whether or not

there are enough resources and programs; equity, the question of fairness in access to resources and programs; efficiency, the question of the extent of program outputs which result from the resource inputs; and liberty, the question of freedom of choice in determining resource inputs and selecting from program outputs. It was to address fundamental issues such as these that the Illinois Public School Finance Project was initiated in May 1981. The goal of the project was to recommend improvements in the state-local plan of financing public education in Illinois.

As a result of this school finance project, a Resource Cost Model (RCM) approach to funding education was developed by Jay G. Chambers and Thomas B. Parrish (Chambers and Parrish, 1982). Subsequently, the State Superintendent of Education recommended the RCM approach as a model program for financing public education in the State of Illinois. The central focus of the Resource Cost Model (RCM) is to identify school district fiscal needs. A basic assumption of this RCM approach is that the three factors which account for most variation in the amount local districts spend are (1) cost, (2) quantity, and (3) local community preference. Cost is to be distinguished from expenditure in that expenditure involves cost and choice (local community preference). For example, cost implies "generic" goods and services, and choice (local community preference) implies

"Brand A or Brand B" goods and services. The third factor, quantity, suggests that more students and/or more programs will require more resources.

The RCM process addresses the "cost" factor of school district fiscal needs through the use of cost of education indexes (CEIs)--four personnel indexes and an energy index. (See Appendix F for Cost of Education Indices for Selected School Districts.) The "quantity" factor of school district fiscal needs is addressed through the Program Cost Differential (PCD) process (139 programs and 12 resource specification variables per program). The "local community preference" or "choice" factor of school district fiscal needs may be addressed by a state-local system of finance which is similar to the foundation level program. Although each of these factors requires extensive discussion, the central focus of this paper is the "quantity" factor of school district fiscal needs. However, it is important to note the "cost" and "local community preference" variables that will impact on local school district planning prior to proceeding to a discussion of the "quantity" factor.

The cost of education indexes are designed to reflect variation in costs due to labor and energy market conditions over which the school district has no control. Concern has been expressed over abrupt differences in the CEIs for adjacent geographic regions. Given that further study

regarding the feasibility of district CEIs is necessary, it should be noted that the preliminary draft recommends cost of education indexes for (1) teachers' salaries, including those of building principals, (2) district level administrator's salaries, (3) salaries of other certificated personnel, such as psychologists, (4) salaries of non-certificated or classified personnel, such as clerks and custodians, and (5) energy. (See Appendix F.)

The "local community preference" factor requires variables similar to those in the foundation level program. However, the foundation level amount per pupil (G) will be replaced by the aggregate amount of all "cost adjusted" and "quantity adjusted" resources considered to be "appropriate" for the district by the state. The property tax base per pupil (B_i) will be replaced by the total property tax base of the district. Therefore, the total amount of "RCM state aid" will be the difference between the aggregate amount of all "cost adjusted" and "quantity adjusted" resources considered to be "appropriate" for the district by the state and the product of the total property tax base of the district and a state specified tax rate.

The "quantity factor" of school district fiscal needs is addressed in the Program Cost Differential (PCD) process. A basic assumption of the PCD process is that different resources are required to address the diverse programs and activities of a school district. For example, the resource

requirements in terms of personnel and supplies and equipment may be very different for a self-contained kindergarten program than for an advanced science program at the senior high school level. Similarly, support service personnel requirements may be significantly different for a special education program than for an instrumental music program at the junior high school level. The PCD process resulted in the identification of 139 programs for which specific quantities of personnel and specific amounts of purchased services, supplies and materials, and equipment were subsequently specified. The activities of the PCD process are succinctly described in the publication Illinois Public School Finance Project: State Superintendent's Preliminary School Finance Reform Recommendations-Resource and Background Materials as follows:

> These program category committees, which were composed of local school district personnel, State Board of Education staff, and education association program experts, met independently to identify the ways students are currently being served and to suggest changes that could be made to enhance these services. The committees then began the process of defining services in terms of staffing, class size ranges, supplies and materials, special equipment, and administrative and support services. The committees' decisions were guided by the question, "What resources are needed to provide an adequate education for students of all types?" (7)

As a result of the Program Cost Differential (PCD) process, 139 program were identified and grouped into 8 program categories as follows:

1. Regular Elementary -- 14 programs
2. Secondary -- 21 programs (24 programs were identified, but 3 were subsequently dropped)
3. Special Education -- 45 programs
4. Gifted Education -- 7 programs
5. Vocational Education -- 34 programs
6. Poverty Supplement -- 3 programs
7. Limited English Proficient -- 14 programs
8. District Level Administration -- 1 program

The specification of resources for the District Level Administration program differs from that of the remaining 138 instructional and service programs and is excluded from further discussion in this paper. (Refer to Appendices D and E for illustrative information regarding computation of district level costs. See Everett and Lows, "The ABC's of RCM", for details.)[8]

In order to illustrate the detail of resource specification associated with the remaining 138 programs, information for Program 205, Basic/Advanced Math--Grades 9-12 in the Secondary Program Category is as follows:

Program number 205

Program name Basic/Advanced Math-- Grades 9-12
Departmentalized classes for pupils in grades 9-12 who enroll in basic or advanced level math courses such as remedial math and calculus. (One period in length)

Caseload -- Target 20
(The caseload at which units are desired to be funded)

Caseload -- Maximum 25
(The caseload which can not be exceeded. If it is exceeded, then another unit or partial unit is generated.)

Caseload -- Minimum 15
(The lowest caseload at which a full unit will be generated. When the total district population in a specific configuration is less than the minimum, a proportionate reduction in the state funding of the unit occurs.)

FTE Personnel per Caseload -- Teachers .2

FTE Personnel per Caseload -- Aides 0

FTE Personnel per Caseload -- Other Professionals 0

Expenditures per Caseload -- Purchased Services 0

Expenditures per Caseload -- Supplies/Materials $46

Expenditures per Caseload -- Special Equipment $207

Building Space (square feet) 125
(The product of the area allotted and the state-wide cost of energy per square foot yields the "appropriate" energy cost for this program.)

Program Units 1.0
(The portion of the costs of a unit that will be generated.)

Enrollment Code Z
(Enrollment codes:
W -- total secondary (9-12) enrollment
X -- total elementary (K-8) enrollment
Y -- total enrollment at the specified grade(s) level(s)
Z -- total number actually served

(See Appendix A for specification of "appropriate" resources from Program Number 205, as well as for other elementary and secondary programs.)

After the resources have been identified for a given program, such as PID 205, then the "appropriate" costs are adjusted by applying the labor and energy CEIs. (Refer to Appendix B for detail.) The product of the adjusted costs per caseload and the number of caseloads (RCM Units) yields the total "appropriate" costs generated by the pupil count for the program. (Refer to Appendix C for an illustrative summary sheet.) This process of computing total costs per program is repeated for each of the 138 instructional programs. The sum of the total costs for the 138 programs and the district level administration costs yields the cost adjusted resources which are judged by the State to be appropriate for a specific school district.

Implications for Local School District Planning

A brief overview of the current foundation level program and the proposed Resource Cost Model approach to funding public education in Illinois has been presented. It is an understatement to say that the foundation level approach is significantly less complex than the RCM approach. It is readily apparent that the two approaches require different technologies to perform the computations.

On the one hand, the computations required for the foundation level approach are few in number and can be easily performed with pencil and paper in a few seconds or minutes. (Measure of complexity is 7; 2 points for each multiplication/division operation and 1 point for each addition/subtraction.) On the other hand, the computations required for the RCM approach are numerous and probably require a microcomputer. (Measure of complexity is 4901.)

In addition to the obvious differences in the number of computations involved, there are differences which result in significant implications for local educational planners. A comparative analysis of the variables used in each of the two approaches provides some insight into differences which have implications for local school district personnel. (Refer to Table II for the List of Variables.) Some variables, such as state aid, district tax base, district tax rate, and state specified tax rate have analogous functions in each of the two approaches and can be eliminated from further discussion. Two sets of variables, of factors, do merit discussion-- (1) pupil counts; and (2) the amount from which required local contributions are subtracted to obtain the state's share.

Table II

List of Variables

Foundation Level and Resource Cost Model Approaches

to State-Local Financing of Public Education

Foundation Program	Resource Cost Model
General State Aid	General State Aid
District Tax Base	District Tax Base
District Tax Rate	District Tax Rate
Specified Tax Rate	Specified Tax Rate
Pupil Count (ADA)	Pupil Count (Enrollment)
by Kindergarten	by grades K-6
grades 1-6	grades 7-8
grades 7-8	grades 9-12
grades 9-12	grade levels
district	program
	district
Foundation Level Amount	Program Costs
	Programs (139)
	Caseloads
	Target
	Minimum
	Maximum
	Personnel
	Teachers
	Aides
	Other Professionals
	Purchased Services
	Supplies and Materials
	Special Equipment
	Energy
	Cost of Education Indices
	Teachers
	Aides
	Other Professionals
	Administrators
	Energy

Pupil counts under the two approaches are significantly different. For example, pupil counts under the present system are based on the best three months average daily attendance (ADA) and is segregated by pupils in kindergarten, grades 1-6, grades 7-8, and grades 9-12. This method of counting pupils is said to promote school attendance. In addition, weights are assigned to pupils at the various levels to reflect differences in the expenditures per pupil at those levels. Pupils counts under the RCM approach would most likely be pupil counts, enrollment or attendance, for a specific day or for specific days. Since pupil counts must be specific to each of the 139 programs, it is unlikely that ADA data would be required by the State Board of Education. This system of using enrollment counts rather than ADA counts would abandon financial incentives to promote school attendance. Pupil counts under the present system are aggregated by four categories--kindergarten, grades 1-6, grades 7-8, and grades 9-12. Under the RCM approach pupils would be aggregated by grades k-6, grades 7-8, grades 9-12, grades k-12, each grade level, and by program -- in other words, there will be 139 types of pupil counts. Although the pupil count categories would be increased under the RCM approach, the increase in pupil count categories is not significant in and of itself. Rather, it is significant to note that the RCM is an enrollment driven system of state-local school finance and

that "appropriate resources" generated by the enrollments are program specific.

Specification of "the amount" from which the required local contribution is to be subtracted to yield the state aid entitlement is significantly more complex for the RCM than for the foundation level program. In the RCM approach, "the amount" varies from district to district as a result of application of the labor and energy cost of education indices and the number of caseloads for each of the respective programs. That "amount" is the arithmetic sum of all program specific cost adjusted amounts from each of the 139 programs. In other words, "the amount" is not specified by the General Assembly, but is generated by the pupil counts in each district with the state. The variables that comprise this factor are caseloads -- target, minimum, and maximums; personnel costs -- teachers, aides, and other professionals; purchased services; supplies and materials; special equipment; energy costs; and cost of education indices -- teacher CEI, aid CEI, other professional (ins_sup) CEI, administration CEI, and energy CEI. This state of affairs may influence enrollments in high or low resource allotment programs. For example, assume there are 100 students enrolled in an English program. If the 100 students were enrolled in English Basic/Advanced (PID 201), then <u>five</u> caseloads of resources would be considered as appropriate ($30,910, excluding adjustment for labor and

energy cost variances). However, if the 100 students were enrolled in English Regular (PID 201), the only four caseloads of resources would be considered as appropriate ($24,840, excluding adjustment for labor and energy cost variances). This situation may result in pressure to reduce the number of students who are classified as English Regular and an increase in students who are classified as English Basic/Advanced.

The second factor, or set of variables, that may be of concern to local educational planners is the specification of "the amount" from which the required local contribution is subtracted to yield the state contribution. Under the foundation level approach, "the amount" is the foundation level amount and is specified by the General Assembly. Textbooks generally describe the foundation level as "the minimum adequate amount which should be available for the education of each child in the state." Practically, it is the amount such that an additional one-cent increase in that amount would just result in an over-allocation of resources to school districts in the State in a simulated distribution of the budgeted resources. As soon as the foundation level is set, local educational planners have the information necessary to compute the state aid entitlement.

Under the RCM approach, "the amount" from which the required local contribution is subtracted is a function of the Program Cost Differential (PCD) process. The PCD process

involves the identification of "appropriate programs" and the specification of "appropriate resources" for each of the specified programs. That is, the PCD process identifies "the one most appropriate set of instructional programs" for each district within the State and the "one most appropriate set of resources for each program" of the "one most appropriate set of instructional programs." Thus, the PCD process provides a framework for the State to assign priorities to programs and to specify resources to encourage compliance in school districts throughout the State.

The detailed specification of programs and program specific resources has implications for accounting and budgeting operations and personnel administration. First, if there is to be some relationship between actual practice and the program specific resource specifications, then the uniform accounting requirements for local school districts must be modified to include an additional dimension for recording transaction by each of the 138 instructional programs. Second, if there is to be some relationship between actual caseloads, or class sizes, and the program specific caseloads, then personnel policies and/or collective bargaining agreements may need to be changed to permit differential caseload assignments by program. Third, the program specific resource specifications will undoubtedly establish budgetary expectations for instructional staff in the respective programs.

Summary

The Resource Cost Model was designed to address inequities resulting from variances in need, cost, and wealth. Variances in need are addressed through the Program Cost Differential process which resulted in the identification of 138 instructional programs and a district level administration program and the specification of "appropriate" resources for each of the programs. Variances in cost of labor and energy were addressed through the Cost of Education Indices for each school district within the State. Subsequent to need and cost adjustments, variances in access to local revenue due to property wealth were addressed through a wealth equalization formula analogous to a foundation level or Strayer-Haig formula.

In "fixing" inequities due to need, cost and wealth, the RCM approach creates concerns for local school district personnel. The RCM approach is significantly more complex than the traditional foundation level formula (computationally, in the order of 700:1). Variables critical to long-range planning are subject to revision through the PCD process. The RCM approach will require an expansion of the accounting and reporting operations and will create budgetary expectations for instructional staff. In addition, the detailed specification of caseloads and personnel

resources may necessitate changes in personnel policies and/or collective bargaining agreements.

In summary, the RCM was designed to address inequities. The RCM does create some concerns for local school district personnel. A central concern must be whether or not the "cure" is worse than the "illness." The State Board of Education did provide numerous opportunities for local school district to become aware of the Resource Cost Model from the perspective of the State. There exists a need to become aware of the implications of the RCM from the perspective of local school district personnel. Then and only then can one judge the merits of the Resource Cost Model approach to state-local systems of financing public education.

BIBLIOGRAPHY

[1]_____, Illinois Public School Finance Project, "State Superintendent's Preliminary School Finance Reform Recommendations: Resource and Background Materials," September, 1984. p. 1

[2]_____, Illinois Public School Finance Project, "The Report of the Technical Advisory Panel: A Comprehensive System of Financing Illinois Public Education," September, 1983. p. 3

[3]Chambers, Jay G. and Parrish, Thomas B. "An Overview of the Resource Cost Model (RCM)." Stanford, CA: Associates for Education Finance and Planning, Inc., March 1, 1984.

[4]_____, Illinois Public School Finance Project, "The Report of the Technical Advisory Panel: A Comprehensive System of Financing Illinois Public Education," September, 1983. p. 3

[5]_____, Illinois Public School Finance Project, "The Report of the Technical Advisory Panel: A Comprehensive System of Financing Illinois Public Education," September, 1983. p. iii

[6]_____, Illinois Public School Finance Project, "State Superintendent's Preliminary School Finance Reform Recommendations: Resource and Background Materials," September, 1984.

[7]_____, Illinois Public School Finance Project, "State Superintendent's Preliminary School Finance Reform Recommendations: Resource and Background Materials," September, 1984. p.14

[8]Everett, R. E. and Lows, Raymond L. "The ABC's of RCM." A publication of the Illinois Association of School Business Officials supported by contract with the Illinois State Board of Education, Springfield, IL, January 1985. (See Raymond L. Lows. "Resource Cost Model Spreadsheet Templates." A set of eight Appleworks spreadsheet templates for the Apple //e microcomputer on two data diskettes to facilitate computation of appropriate resources under the proposed RCM state-local finance system. Diskettes are available from the Illinois Association of School Business Officials and instructions for use are presented in the IASBO/ISBE publication, "The ABC's of RCM.", January 1985.)

Appendix A

COST OF RESOURCE ALLOTMENT SCHEDULE

Program Category: Regular Elementary

Prog ID (PID)	Caseload Targ	Max	Min	Tchrs	Aides	Other Profs	Purch Service	Supp/ Mtrls	Spec Equip	Bldg Space Sq. Ft.	Prog Units	Ear Code
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
101	22	28	16	.5	0	0	$0	$500	$575	500	1.0	Y
102	23	28	18	1	0	0	$0	$1,500	$1,334	900	1.0	Y
103	500	500	500	3	0	0	$3,500	$1,400	$1,860	2,120	.2	Y
104	100	100	100	1	0	0	$1,100	$300	$1,300	1,000	.2	Z
105	300	300	300	0	1.0A	0	$3,000	$1,000	$4,000	900	.2	Y
106	40	40	40	1	0	0	$1,000	$500	$750	300	.2	Z
107	24	28	20	.8	0	0	$25	$335	$1,563	617	1.0	Z
108	16	22	12	.2	0	0	$25	$300	$410	125	1.0	Z
109	40	50	30	.2	0	0	$200	$200	$800	750	1.0	Z
110	28	45	22	.2	0	0	$10	$40	$150	120	1.0	Z
111	30	50	10	.2	0	0	$50	$100	$360	700	1.0	Z
112	24	28	20	.2	0	0	$400	$1,000	$800	150	1.0	Y
113	1000	1000	1000	0	1.5B	6.5SE	$5,142	$1,762	$2,895	5,439	.1	X
114	1000	1000	1000	2.0J	0	3.0SF	$15,000	$369	$700	994	.5	X

Appendix A
(Continued)

Program Category: Secondary

Prog ID (PID)	Caseload Targ	Max	Min	Tchrs	Aides	Other Profs	Purch Service	Supp/ Mtrls	Spec Equip	Bldg Space Sq. Ft.	Prog Units	Enr Code
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
201	20	25	15	.2	0	0	$0	$50	$207	125	1.0	2
202	25	30	20	.2	0	0	$0	$50	$235	125	1.0	2
203	22	26	18	.2	0	0	$50	$1,000	$333	167	1.0	2
204	20	24	16	.2	0	0	$50	$1,000	$316	167	1.0	2
205	20	25	15	.2	0	0	$0	$46	$207	125	1.0	2
206	25	30	20	.2	0	0	$0	$46	$235	125	1.0	2
207	25	30	20	.2	0	0	$0	$39	$235	125	1.0	2
208	20	25	15	.2	0	0	$45	$500	$285	125	1.0	2
209	25	30	20	.2	0	0	$200	$800	$435	167	1.0	2
210	35	40	30	.2	0	0	$0	$200	$47	24	1.0	2
211	45	55	35	.2	0	0	$100	$500	$1,394	120	1.0	2
212	40	50	30	.2	0	0	$500	$500	$1,394	120	1.0	2
213	15	20	10	.2	0	0	$0	$35	$179	125	1.0	2
214	15	20	10	.2	0	0	$0	$15	$179	125	1.0	2
215	15	20	10	.2	0	0	$0	$15	$179	125	1.0	2
216	25	30	20	.2	0	0	$0	$39	$235	125	1.0	2
217	25	30	20	.2	0	0	$0	$39	$235	125	1	2
218	140	140	140	1	0	0	$1,610	$0	$0	125	.2	2

Program Category: Secondary (Continued)

219	25	30	20	.2	0	0	$50	$50	$1,200	900	.2	Z
220	75	100	50	.2	0	0	$0	$0	$150	375	1	Z
221	22	26	18	.2	0	0	$125	$50	$1,235	167	1	Z
222	22	26	18	0	.2A	0	$125	$50	$1,235	167	1	Z
223	2000	2000	2000	0	2.0B	12.1G	$10,425	$3,050	$5,070	9,767	.01	W
224	2000	2000	2000	4.0J	0	4.0H	$4,000	$450	$1,375	1,775	.15	W

(From Everett, R. E. and Laws, R. L. "The ABC's of RCM." A publication of the Illinois Association of School Business Officials supported by contract with the Illinois State Board of Education, Springfield, IL. January 1985. pp76-78)

Note 1: Salary for FTE personnel in columns 5,6, and 7 is $29,000 unless an alphabetic character (A-K) is attached. Exceptions are as follows: A--$11,300; B--$11,600; C--$18,750; D--$32,000; E--$29,500; F--$42,000; G--$30,000; H--$51,000; I--$30,000; J--$42,000; and K--$31,700.

Note 2: Enrollment codes are as follows: W implies total secondary (9-12) enrollment; X implies total elementary (K-8) enrollment; Y implies total number at the grade(s) level(s); and Z implies the number actually served.

Appendix B

Cost per Program Specific RCM Unit
(Cost/PID # RCM Unit)

Program Category _____
Program Name _____
Program Number (PID) _____

Cost of resources per PID ___ RCM Unit. (Refer to "Cost of Resources Allotment Schedule" or PID #'s and for resource allotments by PID.)

Cost allotments for resources:

A. Teachers (FTE #)x(Salary)x(TCHR CEI)

_____ x _____ x _____ = _____

B. Aides (FTE #)x(Salary)x(AIDE CEI)

_____ x _____ x _____ = _____

C. Other Professionals
(FTE #)x(Salary)x(INS_SUP CEI)

_____ x _____ x _____ = _____

D. Purchased Services _____

E. Supplies and Materials _____

F. Special Equipment _____

G. Building Space
(Area)x(energy cost/sq. ft.)x(ENERGY CEI)

_____ x _____ x _____ = _____

TOTAL COST PER PID ___ RCM UNIT _____

(Adapted from Everett and Lows, "The ABC's of RCM.", p 96)

Appendix C

SUMMARY OF RCM COSTS FOR ALL PROGRAMS

PID #	Number of PID RCM Units	X	Cost of PID RCM Unit	=	Total PID Costs
101					
102					
103					
104					
105					
106					
107					
108					
109					
110					
111					
112					
113					
114					
	Total for Program Category: Regular Elementary				
201					
202					
203					
204					
205					
206					
207					
208					
209					
210					
211					
212					
213					
214					
215					
216					
217					
218					
219					
220					
221					
222					
223					
224					
	Total for Program Category: Secondary				
	GRAND TOTAL ALL PROGRAM CATEGORIES				

(Adapted from Everett and Lunn, "The ABC's of RCM," pp. 98-104)

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Appendix D

District Level Cost of Resource Allotment Schedule
by Target Enrollments (0; 1,200; 6,500; and 19,000)

Goods and Services	Col. 1 (0 pupils)	Col. 2 (1,200 pupils)	Col. 3 (6,500 pupils)	Col. 4 (19,000 pupils)
Superintendent	0.0	1.0	1.0	1.0
Other Administrators	0.0	3.0	5.5	7.0
Exec Secretary/Bookkeeper	0.0	3.0	5.0	13.0
Secretary/Clerical	0.0	4.0	30.0	95.0
Custodian	0.0	10.0	33.0	100.0
Maintenance	0.0	2.0	5.0	15.0
Trades	0.0	1.0	4.0	15.0
Purchased Service	$0	$154,000	$570,000	$2,931,000
Supplies	$0	$32,000	$113,000	$366,000
Equipment	$0	$48,000	$237,000	$770,000
Sq. Ft. (Building Space)	$0	$37,000	$228,000	$570,000

Interpolating District Level Costs of Resources

$$Q_i = Q_{low} + (Q_{high} - Q_{low}) * ((E_i - E_{low})/(E_{high} - E_{low}))$$

where Q_i = the quantity of the given resource which is generated by the local school district enrollment

Q_{low} = the target quantity of the given resource at the low enrollment end of the interval

Q_{high} = the target quantity of the given resource at the high enrollment end of the interval

E_i = the enrollment of the local school district

E_{low} = the enrollment at the low enrollment end of the interval

E_{high} = the enrollment at the high enrollment end of the interval

Rounding Interpolated Quantities of District Level Costs of Resources

Quantities of Personnel

$$Q'_i = [INT(5 \times Q_i + 0.5)]/5$$

Quantities of Goods and Services

$$Q'_i = INT(Q_i + 0.5)$$

(Adapted from Everett and Lows, "The ABC's of RCM." pp. 64+, 89)

Appendix E
Summary of District Level Costs of Resources

Cost allotments for resources:

A. Superintendent
(ADM CEI)x($58,000)x($Q'_i$)

_____ x _____ x _____ = _____

B. Other Administrators
(ADM CEI)x($45,000)x($Q'_i$)

_____ x _____ x _____ = _____

C. Exec Sec/Bookkeeper
(AIDE CEI)x($21,000)x($Q'_i$)

_____ x _____ x _____ = _____

D. Secretary/Clerical
(AIDE CEI)x($18,750)x($Q'_i$)

_____ x _____ x _____ = _____

E. Custodian
(AIDE CEI)x($22,000)x($Q'_i$)

_____ x _____ x _____ = _____

F. Maintenance
(AIDE CEI)x($22,000)x($Q'_i$)

_____ x _____ x _____ = _____

G. Trades
(AIDE CEI)x($26,500)x($Q'_i$)

_____ x _____ x _____ = _____

H. Purchased Services (Q'_i) _____

I. Supplies and Materials (Q'_i) _____

J. Special Equipment (Q'_i) _____

K. Building Space
(Q'_i) X ($1.00/sq. ft.)

_____ x _____ = _____

TOTAL DISTRICT LEVEL COSTS _____

Appendix F

Cost of Education Indices For Selected Districts

Dist ID	Tchr	Aide	Ins_Sup	Admin	Energy
41012050	.9634	.9939	.9622	1.0220	1.0180
80432120	.9320	.8491	.9056	.6999	.8710
140160150	1.0245	1.0175	1.0235	1.0966	1.1023
140161250	1.0245	1.0781	1.0461	.9040	.9224
140162090	1.0245	1.1024	1.0548	1.0990	.8622
140162140	1.0245	1.0456	1.0341	1.1281	.9320
140162300	1.0245	1.0612	1.0399	1.0810	1.0881
140162990	1.0880	1.1735	1.0796	1.1700	1.0655
160194280	.9326	.8194	.9600	.9902	.9221
160194280	.9326	.8194	.9600	.9902	.9221
190220070	.9820	1.0438	1.0511	.9549	1.1676
190220250	.9820	.9945	1.0320	.9633	.7650
190220860	.9820	1.0490	1.0531	1.0725	.8461
190220870	.9820	1.0242	1.0436	1.1057	.8219
190221000	.9820	1.0543	1.0551	.9966	1.0322
190222020	.9820	1.0152	1.0401	.9984	.8520
190222030	.9820	1.0152	1.0401	1.1274	.9734
190222040	.9820	.9800	1.0262	1.0029	.8539
190222050	.9820	1.0543	1.0551	1.1145	.8762
240321110	.9134	.8743	.9741	.8522	1.5676
240473080	.9134	.8594	.9807	1.0000	.8762
310450460	.9820	.8532	.9865	1.0959	.9765
310451010	.9820	.8717	.9948	.9838	.8157
310451290	.9820	.8717	.9948	1.0573	.9520
310451310	.9820	.8717	.9948	1.0567	.8762
310453000	.9820	.8556	.9876	1.0640	1.0620
310453020	.9820	.8373	.9790	.9576	1.1785
340491130	.9820	.9970	1.0029	1.0180	1.1154
350501400	.9344	.8446	.9592	.9260	1.0258
350502300	.9344	.8466	.9592	.6576	1.0258
411013200	.9634	.9600	.9499	.8123	.9671
440630120	.9820	.8643	.9657	.9426	1.3643
440630150	.9820	.8643	.9657	.9689	.8762
440631560	.9820	.8643	.9657	.9181	1.0554
470711440	.9320	.9022	.9378	.6308	.9305
500820400	.9790	.9302	.9515	.7793	1.2736
520892000	.9320	.8351	.9175	.7433	.9603
560992020	.9820	.9058	.9816	.9824	.8832
560993650	.9820	.9261	.9900	1.0677	1.5312

(Selected from Everett and Laws, "The ABC's of RCM," pp. 111-131)